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Cover Photo:  
Wool carpet  
Central Caucasus, 17th or 18th century  
Acquired by George Hewitt Myers in 1916  
TM R36.1.1  
195 in (warp) x 93 in (weft)

A classic "dragon" carpet with two-tiered lattice of paired lanceolate leaves enclosing addorsed pairs of dragons and lotus blossoms. Scattered in pairs are stylized lions, ducks, pheasant, and mythical beasts with palmette blossoms and sunbursts placed at points of intersection.

#### Note to Contributors:

*The Textile Museum Journal* is devoted to the presentation of scholarship concerning the cultural, technical, historical, and aesthetic significance of textiles. The journal is international in scope with emphasis on geographic areas represented in The Textile Museum's collections: Near East, Central, South, and Southeast Asia, and South and Central America.

Authors are invited to submit manuscripts based on original research of a documentary, analytical, or interpretive nature. Articles should be both scholarly and accessible to the public.

For further information, write to Journal Coordinator, *The Textile Museum Journal*, 2320 'S' Street, NW, Washington, D.C. 20008

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# Carpet Conservation: A Survey of Current Practices in Europe

by Jane L. Merritt

Europe is home to many splendid carpet collections, both in private homes and museums. The history of these collections and their preservation can be chronicled as early as the 15th century, with generations of caretakers preceding the conservators of today. By visiting conservation facilities in both museums and private ateliers throughout Europe, current practices, techniques of cleaning and repair, exhibition standards, and the general guiding principles regarding the care of Oriental rugs have been investigated.

This report is based on 22 site visits, as well as numerous interviews with conservators, curators, and scientists. Even in those museums where minimal work on carpets was in progress, an enthusiasm for the topic of carpet conservation was evident. Conservators spoke of a renewed interest in these collections on the part of curators. Evidence of this interest is emerging through the mounting of new exhibitions on carpets, the updating of procedures and policies by conservators, and the revision of standards for the cleaning and stabilization of carpets.

## Early Carpet Treatment Procedures

In surveying the current state of carpet conservation in Europe, it is first necessary to examine the major influences in textile con-

servation in this region over the past 50 or 60 years; influences which directly affect today's carpet treatment practices.

Several early textile conservators shaped philosophy and attitudes and formulated treatments which are still prevalent in Europe today. Two such personalities are Agnes Geijer of Sweden, whose career began in the 1930s and spanned more than 50 years, and Sigrid Müller-Christensen of Germany, particularly active after World War II in developing methodologies to treat decaying fabrics so that they could be studied and displayed. Intrinsic to the working methodologies of these two pioneering conservators were the fundamental ethics of conservation as we know them today, including principles of reversibility in treatment, documentation of treatment methodologies, and respect for the original material and function of an object. These ethics and this approach are evidenced in the museum laboratories observed during this survey.

Within museums, carpets have been routinely grouped with tapestries with the result that similar approaches for treatment were adopted. Moreover, these objects are comparable in historical significance, size, materials, and technique. Conservation labs often have been designed to meet the specialized requirements of both these categories of textile materials.

Part of what uniquely characterizes the history of carpet preservation is that these objects have been handled by many different kinds of caretakers. Important carpets usually came through the hands of dealers and collectors before arriving in a museum. For these clients, treatment practices emphasized aesthetic methods to compensate for loss, as the goal was functional use as a floor covering. Craftspeople, such as restorers, would have worked on these pieces. The most common repair methods included the patching-in of parts taken from other rugs, reweaving, reknitting, and embroidery. The method selected often depended on the degree of visual enhancement required, and ultimately on cost.

Carpets lose their function as floor coverings upon entering museum collections; thus, many repair methods performed for carpets in daily use are considered unnecessary. The patching-in of weakened areas with carpet fragments has been abandoned in

contemporary practice, and selective restoration, such as the addition of new pile, is executed only in areas of background color. It has become common to place a fabric support patch behind damaged or weakened areas of a rug. Carpets are often fully lined. For exhibition, fragile rugs or fragments are sewn onto a fabric-covered wooden frame. Carpets in sturdy condition are displayed by hanging from a webbing or sleeve casing which is attached to wooden battens or poles in the same way that tapestries are mounted.

To a great extent, the above described principles and techniques are still in practice in the sites visited for this survey. Unlike some of the recent developments in the treatment of tapestries, there have been few conservation projects on carpets where new ideas or methodologies have been devised and the results assessed.

One example of a major conservation project was the washing and stabilization of the Victoria and Albert Museum's Ardebil carpet in 1974. This 16th century Persian carpet measuring 5.3 meters by 10.5 meters had been on continuous display in the Museum for nearly 60 years. It needed cleaning and additional support but had to be re-fitted into its original glass-fronted case. Most of the old repairs were removed before washing. Once cleaned, webbing was placed along the top of the rug, and the rug was then sewn to a polyester support cloth (terylene) through the webbing. The terylene was stretched over a steel mesh screen for placement in the case, and the case was sealed so that only clean air circulated around the carpet.

## Treatment of Carpets before Exhibition

The duration of exhibition periods can vary widely from one institution to another. Some rugs are displayed permanently, some are displayed on a long-term basis with periodic rotations, and others are limited to special exhibitions with short public exposure. Most rugs observed receive treatment before being exhibited. Each lab begins this process with a complete examination and documentation of the piece which usually includes the creation of photographic records.

The most common treatments are cleaning and stabilization, and wet cleaning ap-

pears to be a routine procedure. These cleaning procedures are usually similar in scope and include a preliminary test for colorfastness and the use of either demineralized or softened water, depending on the lab facility. The washing liquid, either an anionic or non-ionic detergent, varies accordingly.

The museum which is most actively working on its carpet collection is the *Türkiye İslam Eserleri Müzesi* in Istanbul, which is currently in the process of treating its entire collection of hundreds of rugs. With the assistance of personnel from the *Museum für Islamische Kunst* in West Berlin, a laboratory was designed, staff were trained, and treatment procedures and policies were established. Each carpet is washed, after which old repairs are removed and the rugs lined. Loose threads are couched down and the carpet is either put in storage or displayed.

The disposition of old repairs in a rug is a problem which is considered carefully before proceeding with a treatment. Historically it has been considered inappropriate to remove old repairs because it was considered to be tampering with the history of the rug and possibly damaging to its structural integrity. Recently, the effects and significance of these old repairs are being viewed more critically. Only in the Istanbul Museum was the removal of repairs routine. Elsewhere, the decision regarding how to treat old mends was made on an individual basis. In most labs visited, the repairs were kept intact unless they caused damage to the rug or prevented effective treatment.

## Stabilization Techniques

The traditional conservation practice of placing a support patch, usually of linen, behind a weak or missing area is indeed practiced widely. Most laboratories have the facilities to custom-dye fabrics to match the carpet. If the application of a local support patch is not adequate, a full lining is affixed to the carpet. Such treatment was carried out on a group of Turkish carpets found in a church in Sion, in southern Switzerland, in 1985. The rugs, in need of extensive care and treatment, were sent to the *Abegg Stiftung* conservation laboratory for treatment. They will be returned to the church in Sion and placed on permanent display in glass cases.

Other common sewing practices include

securing damaged edges and fringes to prevent additional unravelling. For the most part, this work was carried out using only needle and thread, but employing a variety of sewing stitches. Commonly, a simple running stitch parallel to a warp end and catching only loose wefts was used. Damaged edges were secured to a binding such as a cotton twill tape when necessary.

## Exhibition Techniques

The sheer size and weight of carpets limit possibilities for safe methods of display. Many European exhibitions and galleries have devised creative solutions to these problems. Some of the most innovative ideas are evident in France.

The most prevalent methods of display are: hanging the piece from a slat or pole against a wall, sewing the item to a fabric-covered frame, supporting the carpet on a slanted board, or placing it flat on a platform. Several museums have galleries designed especially for their carpet collections. Some of the more visually successful designs permit the visitor to enter the gallery at a second story level and look down onto the carpets which are set against the walls or placed flat on a raised platform. This kind of installation is found in Vienna at the Österreichisches Museum für angewandte Kunst, and in Lyon at the Musée Historique des Tissus.

In the museums where there is no gallery reserved exclusively for carpets, some interesting methods of display were observed. The newest museum in Paris, the Institut du Monde Arabe, is very modern architecturally, and it reflects this same style of modernity and technology in the design of its permanent galleries and carpet display. The carpets are hung against dark grey perforated metal panels using a Velcro system. The loop side of the Velcro is attached to the top and bottom edges of the carpet. The hook side is attached to wooden battens which have metal hooks that fit into the panel perforations. This system provides flexibility in accommodating a variety of different sized carpets and installations, and enables the collection to be rotated easily.

It is common to see smaller carpets or fragments sewn onto a fabric-covered supporting frame for display. Many museums use such a system, but it is especially preva-

lent in the galleries of the Victoria and Albert Museum in London. There, all carpets, regardless of their size, are mounted on fabric-covered wooden frames and placed behind a protective shield of glass.

The Musée des Arts Africains et Océaniens in Paris makes extensive use of the slant board mount in its carpet galleries. The museum staff recently renovated and reopened their permanent installation of carpets from the Maghreb. These rugs are displayed on large, linen-covered slant boards placed along the walls of the gallery. A Velcro band sewn to the top edge of the carpets keeps them in place and provides a measure of security.

Systems of mounting and display are only one of the conservation concerns of carpet exhibition. Many museums are housed in old or historic buildings, replete with complicated environmental problems caused by numerous windows and old heating and ventilation systems. A great variety of sensible and aesthetic methods have been designed to overcome some of these problems. The choice and control of levels of light is essential to the safe display of carpets. Artificial light can be controlled, but natural light poses many problems, particularly in a gallery lined with windows. When placed over windows, diffusion screens fabricated from a variety of materials, including a fine white nylon mesh fabric, grey fiberglass window screening, or thin woven wire mesh, diminish light intensity. These screens fit into windows and detract little from the decor of an historic house. These were used extensively in Italy, most successfully in the Museo Poldi Pezzoli in Milan.

Well-designed contemporary museums directly address the conservation and preservation of artifacts such as carpets. At the Institut du Monde Arab, square metal panels are configured in tiles which line an entire wall of the building. Each "tile" is composed of several variously sized diaphragms which open and close according to the intensity of the daylight. The mechanisms are computer-controlled and react quickly to changes in light levels. Solutions for light control, like these metal tiles, are an integral part of overall aesthetic and functional architectural design.

## Research in Carpet Analysis and Conservation

Finally, observations on the scope and frequency of the scientific analyses performed on carpet materials are of interest. With several exceptions, none of the labs visited were able to conduct any tests on-site other than fiber identification. This lack of scientific support for documentation within a textile lab underscores the prevailing attitude that the textile restorer is primarily a craftsperson, and that although necessary, scientific investigation can be undertaken by outside sources. Therefore, many countries have state-sponsored laboratories which can assist with sophisticated chemical analyses such as the identification of dyes.

In France, the Laboratoire de Recherche des Monuments Historiques performs analyses of materials from state museums, and it also undertakes research and development efforts in conservation and preservation practices. A textile engineer is on the permanent staff and directs the research on textile conservation issues. The Institut Royal du Patrimoine Artistique in Brussels routinely performs dye analysis for workshops in several countries. Universities also assist with analytical work, especially in Britain where the radiocarbon accelerator unit of the Research Laboratory for Archaeology and the History of Art at the University of Oxford is most well known.

While scientists were not in evidence in the museum labs visited, they regularly contribute to the development of carpet conservation practices. However, because so much of the research is done outside museums, scientists in these state-funded labs are relied upon by the museum community to recognize similarities, draw conclusions, and publish their findings. Unfortunately, because many disparate facilities perform the analyses, there is less opportunity to share, collaborate, and distribute research for interpretation by colleagues. As interest grows in the field of technical and analytical studies concerning the conservation of Oriental carpets, surely these large labs and facilities will have more opportunity to collaborate.

## About the Author

Formerly a textile conservator at the Metropolitan Museum of Art and The Textile Museum, Jane Merritt is an independent conservator in Paris, France. While living in Europe, Ms. Merritt has traveled extensively visiting textile laboratories in many countries and has collected information on conservation practices through interviews with conservators, curators, and administrators.

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